

REMARKS

Summary of Office Action

Claims 61-80 are pending in the above-identified patent application.

The Examiner has rejected claims 61-80 under 35 U.S.C. § 103(a) as being obvious from Farber et al. U.S. Patent 6,185,598 in view of Feigenbaum U.S. Patent 6,339,785. Claim 65 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention, because of a missing period and resulting potentially unfinished limitation. Claim 62 has been objected to because of an apparent omitted phrase.

Summary of Applicant's Reply

Applicants have amended the specification and claims 61-63, 65, 67, 70, 72, 73, 75, 77, 79 and 80 in order to more particularly describe and define the invention. The Examiner's objection and rejections are respectfully traversed.

Amendments of the Specification

Applicants have amended the specification (including the title) in order to more particularly describe the invention. In particular, applicants have inserted hyphens in all occurrences of the phrase "client-to-client" (and in the sole occurrence of "peer-to-peer"). Applicants have also corrected various punctuation and paragraphing errors, as well as two spelling errors (changing "perm" to "perform" and "accapella" to "a cappella").*

* Applicants respectfully submit that none of these amendments of the specification is a substantial amendment
(Continued...)

No new matter has been added by the amendments of the specification.

Applicant's Reply to the Objection and
To the Rejection Under 35 U.S.C. § 112

Claim 62 has been objected to because of an apparent omitted phrase, and Claim 65 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention, because of a missing period and resulting potentially unfinished limitation. The objection and rejection are respectfully traversed.

Applicants have amended claim 62 in a manner similar to that suggested by the Examiner, adding "the response portions" between "the" and "is." Applicants have amended claim 65 to add the missing period and to specify not only what is being redirected but also what is being intercepted -- viz., in both cases, the query and the response portions.*

No new matter has been added by these claim amendments. In particular, the amendment of claim 65 is fully supported in the specification in the paragraph beginning at page 2, line 26 and continuing through page 3, line 8.

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related to patentability, nor is any a narrowing amendment, under the doctrine of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 62 USPQ2d 1705 (2002), and related cases.

* Applicants respectfully submit that neither of these amendments is a substantial amendment related to patentability, nor is either a narrowing amendment, under the doctrine of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 62 USPQ2d 1705 (2002), and related cases. Rather, both amendments merely clarify what was intended originally.

Applicant's Reply to the
Prior Art Rejection

Claims 61-80 have been rejected under 35 U.S.C. § 103(a) as being obvious from Farber in view of Feigenbaum. This rejection is respectfully traversed.

Applicant's invention, as defined by the pending claims, as amended, is a caching ("acceleration") method or server for a peer-to-peer ("client-to-client") network. In accordance with the invention as claimed, all data traffic to and from a first client in the network is monitored for cacheable queries and responses thereto, which come from multiple other clients. When such queries or responses are identified, they are intercepted by the acceleration server and aggregated before being transmitted to the first client (and potentially later to other clients).

Applicants note that the claimed monitoring is supported in the specification at least in the paragraph beginning at page 2, line 26 and continuing through page 3, line 8, which discloses that queries and responses are intercepted when they contain information identifying them as queries and responses. It is inherent that the data stream must be monitored if those identifying data are to be detected.

Neither Farber nor Feigenbaum, whether taken separately or together, shows or suggests the claimed invention.

Feigenbaum shows a basic peer-to-peer network in which a client requests particular data, and different portions of that data are delivered by different servers. There is no caching or acceleration disclosed or suggested by Feigenbaum.

Farber shows what is essentially a system for mirroring busy servers, except that instead of full mirror servers, "repeaters" that "sparsely" mirror the server are provided. Requests addressed to the server are "reflected" by

"reflectors" from the server to one of the repeaters, depending on load conditions. If the repeater to which the request is directed does not have the requested data (because it is only a sparse mirror), it will obtain it from the server before delivering it to the requester (thus over time the repeater will become less sparse and more like a mirror).

Caching is inherently different from mirroring. A cache by definition stores a sub-set of an original data set for specific purposes, including, in applicants' case, acceleration, while a mirror is simply a duplicate data store that relieves the load on the original data store. A cache never reaches a condition when all of the content is stored within it. Indeed, in peer-to-peer networks, such a result is impractical because of the immense size of the data set. Caching is carried out based on predictions of user demand in the future, according to different metrics of the data stream, as described in applicants' specification at, e.g., page 3, line 27, through page 4, line 2. Although the mirror of Farber starts out sparse, that is not because it makes any predictions about what content will be needed in the future, and indeed over time it becomes less and less sparse as it gradually becomes a full mirror of original content.

Farber does not show peer-to-peer acceleration or caching as defined by applicants' claims. In Farber, the repeaters only handle requests addressed to the one particular server that they repeat or mirror. Thus, they do not need to, nor do they, monitor all traffic to and from a client, nor do they need to identify peer-to-peer communications for interception from among all traffic.

The reflectors of Farber also do not perform that claimed function. As previously explained by applicants, the need to monitor traffic in both directions distinguishes a peer-to-peer network from a simple download request to a server from a client, because the response to a peer-to-peer

request can come from any number of other peers (whether considered servers or clients), and also because the requesting client can itself be a server of some other request from a different client. The reflectors of Farber sit in front of a particular server and only operate in one direction, redirecting requests addressed to that server. In at least that respect, a Farber reflector differs from a cache that sits at an aggregation point in the network and must monitor and intercept queries and responses to and from numerous clients/servers.

Moreover, as to applicants' apparatus claims, there is no one device in Farber that meets applicants' limitations, because the redirection to the repeaters of requests addressed to the server is carried out by the reflectors, while the serving of the requests (to the extent that the Examiner equates that to caching, which it is not, as discussed above) is carried out by the repeaters.

As discussed above, neither Feigenbaum nor Farber shows caching, and therefore neither shows applicants' claimed monitoring of all communications on a communication channel to detect peer-to-peer traffic, or the claimed intercepting of such traffic from among all communications on a communication channel. Accordingly, the combination of Farber and Feigenbaum, whether or not such a combination would be proper, cannot show those limitations either.

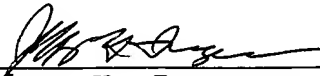
For these reasons, applicants respectfully submit that independent claims 61, 75 and 80, and by extension all dependent claims, are patentable.

Conclusion

For the reasons set forth above, applicants respectfully submit that this application, as amended, is in

condition for allowance. Reconsideration and prompt allowance of this application are respectfully requested.

Respectfully submitted,



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